

Attorney Docket No.: 0180187

REMARKS

By the present amendment, claims 1, 3, 8, 10, 15, and 17 have been amended. Thus, after the present amendment, claims 1-20 remain in the present application. Reconsideration and allowance of outstanding claims 1-20 in view of the above amendments and following remarks are requested.

A. Objections to the Drawings

The Examiner has objected to Figure 1 of the drawings. As mentioned herein, the attached replacement sheet of drawings includes changes to Figure 1. This sheet, which includes Figure 1, replaces the original sheet including Figure 1. In Figure 1, the phrase "Prior Art" has been added.

B. Objections to the Specification

The Examiner has objected to the specification in light of various informalities. Applicants have amended the specification and respectfully request that the objections thereto be withdrawn.

C. Objections to the Claims

The Examiner has objected to claims 3, 10, and 17, asserting that they include reference characters that are not enclosed in parentheses. Applicants have amended

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claims 3, 10, and 17, and respectfully request that the objections to these claims be withdrawn.

D. Rejections of Claims 1-5, 8-12, and 15-19 under 35 USC §102(b)

The Examiner has rejected claims 1-5, 8-12, and 15-19 under 35 USC §102(b) as being anticipated by U.S. Patent Number 5,886,925 to Campardo, et al. ("Campardo"). For the reasons discussed below, Applicants respectfully submit that the present invention, as defined by amended independent claims 1, 8, and 15, is patentably distinguishable over Campardo.

Embodiments according to the present invention address the need in the art for an efficient and accurate sensing circuit for low voltage flash memory devices that improves the sense margin during read memory operations. As disclosed in the present application, the voltage margin for sensing circuit 200 is significantly increased over the voltage margin for known circuit 100 where the decouple coefficient N of decouple circuit 230 is greater than 1. The gate width of PFET 234 is greater than the gate width of PFET 232, thereby providing a decouple coefficient N greater than 1.

The particular arrangement of sensing circuit 200 significantly improves the voltage margin and results in improved accuracy for target memory cell sensing during read operations, particularly for low VCC 208 applications. Sensing circuit 200 achieves a substantially improved sensing margin during read operations, resulting in efficient and accurate memory cell sensing. See the present application, page 13, line 18 through page

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14, line 7. Applicants have amended independent claims 1, 8, and 15 to recite language indicating that the second transistor has a gate width greater than a gate width of the first transistor.

In contrast, Campardo is directed to a read circuit and method for nonvolatile memory cells with an equalizing structure. The read circuit includes a current mirror circuit. The current mirror circuit includes first and second load transistors interposed between the supply line and a respective first and second output node. Campardo does not disclose, teach, or suggest the advantageous structure shown in Figure 2 of the present application and recited in amended independent claims 1, 8, and 15. Further, Campardo does not disclose, teach, or suggest that the second transistor has a gate width greater than a gate width of the first transistor in order to improve a voltage margin.

For the foregoing reasons, Applicants respectfully submit that the present invention as defined by amended independent claims 1, 8, and 15 is not taught, disclosed, or suggested by the art of record. Thus, amended independent claims 1, 8, and 15 are patentably distinguishable over the art of record. As such, the claims depending from amended independent claims 1, 8, and 15 are, *a fortiori*, also patentable for at least the reasons presented above and also for additional limitations contained in each dependent claim.

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E. Conclusion

Based on the foregoing reasons, the present invention, as defined by amended independent claims 1, 8, and 15, and the claims depending therefrom, is patentably distinguishable over the art cited by the Examiner. Thus, outstanding claims 1-20 are patentably distinguishable over the art cited by the Examiner. As such, and for all the foregoing reasons, an early Notice of Allowance directed to all claims 1-20 remaining in the present application are respectfully requested.

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Respectfully Submitted,
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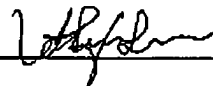
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